

**REMARKS**

Claims 5-12, 20-26, 28, 32, 35, 38, 41 and 43-50 are pending. Claims 1-4, 13-19, 27, 29-31, 33-34, 36-37, 39-40 and 42 have been canceled.

Claim 5 has been amended to recite the subject matter of claim 13.

Claims 32 and 35 have been amended for clarity.

Claims 43 and 45 have been amended to be in independent form.

Claims 46-50 have support in claims 9, 34, 13, 13 and 9, respectively.

No new matter has been added by way of the above-amendment.

**I. Telephone Interview**

Applicants note with appreciation that Examiner Rhee conducted a telephone interview with Applicants' representative, Garth M. Dahlen, Ph.D., Esq. (#43,575) on June 7, 2007. Examiner Rhee was very helpful in clarifying her position.

With respect to claims 1, 14, 31 and 33, Applicants have modified their intended course of action from that discussed during the interview. As such, details of the discussion with respect to these claims is rendered moot.

With respect to claims 43 to 45, the Examiner has found Applicants' arguments persuasive that the density of the positive electrode mixture of claims 43 to 45 (i.e., 2.9 g/cm<sup>3</sup>) is not taught in Shiozaki et al. However, the Examiner has indicated that she was not willing to acknowledge that claims 43-45 are patentable, since the Examiner will perform a supplemental search to be sure that no other prior art reference teaches this feature.

**II. Provisional Obviousness-type Double Patenting**

The following provisional obviousness-type double patenting rejections are pending:

- (A) Claims 1-45 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 7-17 of copending Application No. 10/181,163; and
- (B) Claims 1-45 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-39 of copending Application No. 11/191,742 in view of Inoue et al. (US 6,555,268).

Applicants respectfully traverse both rejections.

In response, Applicants co-file herewith a Terminal Disclaimer over Application No. 10/181,163 and Application No. 11/191,742.

In legal principle, the filing of a TD simply serves the statutory function of removing the rejection of obviousness-type double patenting, and does not raise a presumption on the merits of the rejection. It is improper to view the simple expedient of "obviation" as an admission or acquiescence on the merits. *Ortho Pharmaceutical Corp. v. Smith*, 22 USPQ2d 1119, 1124 (Fed. Cir. 1992) citing *Quad Envtl. Technologies Corp. v. Union Sanitary Dist.*, 946 F.2d 870, 874, 20 USPQ2d 1392, 1394-95 (Fed. Cir. 1991).

Based on the foregoing, the provisional obviousness-type double patenting rejections are rendered moot.

### III. Prior Art Based Issues

The following prior art based rejections are pending:

- (1) Claims 1-18 and 20-42 are rejected under 35 U.S.C. 102(a)<sup>1</sup> as being anticipated by Shiozaki et al. (WO 02086993, using EP1391950 as English translation); and
- (2) Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozaki et al.

Applicants respectfully traverse Rejection (1) to the extent of the subject matter remaining in pending claims 5-12, 20-26, 28, 32, 35, 38 and 41, and Applicants respectfully traverse Rejection (2). Rejection (1) has been rendered moot with respect to canceled claims 1-4, 13-18, 27, 29-31, 33-34, 36-37, 39-40 and 42.

#### i) As to claims 5-12, 20-26, 28, 32, 35, 38 and 41

In response to this rejection, Applicants have amended claim 5 to recite the subject matter of claim 13. In other words, claim 5 has been amended to recite an active material for an electrode, comprising:

a lithium-containing complex oxide A represented by General Formula:  
 $\text{Li}_{1+x+\alpha}\text{Ni}_{(1-x-y)\delta/2}\text{Mn}_{(1-x-y)\delta/2}\text{M}_\gamma\text{O}_2$  (where  $0 \leq x \leq 0.15$ ,  $-0.05 \leq x+\alpha \leq 0.2$ ,  $0 \leq y \leq 0.4$ ;  $-0.1 \leq \delta \leq 0.1$ ; and M is at least one element selected from the group consisting of Mg, Ti, Cr, Fe, Co, Cu, Zn, Al, Ge, Zr and Sn), the lithium-containing complex oxide A comprising secondary particles formed of flocculated primary particles, the secondary particles having a mean particle diameter of 5 to 20  $\mu\text{m}$ , Mn having an average valance of 3.3 to 4; and

a lithium-containing complex oxide B having a mean particle diameter smaller than the mean particle diameter of the secondary particles of the lithium-containing complex oxide A, the lithium-containing complex oxide B having a different composition from the lithium-containing complex oxide A and being represented by General Formula:  $\text{Li}_{1+a}\text{R}_{1-a}\text{O}_2$  (where  $0 \leq a \leq 0.05$  and  $-0.05 \leq a+b \leq 0.05$ ; and R is Co and at least one element selected from the group consisting of Mg, Ti, Cr, Fe, Cu, Zn, Al, Ge, Zr and Sn).

With respect to claim 13, the Examiner cites paragraph 0025 at page 4 of Shiozaki et al.

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<sup>1</sup> The Examiner cites Shiozaki et al. under 35 USC 102(a), however, it is noted that this reference is available under 35 USC 102(b).

However, Applicants respectfully submit that if the Examiner looks again at this section more closely, the Examiner will note that Shiozaki et al. fail to mention a lithium-containing complex oxide B having a different composition from the lithium-containing complex oxide A and is represented by General Formula:  $\text{Li}_{1+a+b}\text{R}_{1-a}\text{O}_2$  (where  $0 \leq a \leq 0.05$  and  $-0.05 \leq a+b \leq 0.05$ ; and R is Co and at least one element selected from the group consisting of Mg, Ti, Cr, Fe, Cu, Zn, Al, Ge, Zr and Sn) wherein lithium-containing complex oxide B is contained together with the lithium-containing complex oxide A in the active material.

As the MPEP directs, all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of anticipation or obviousness. See MPEP §§ 2131 and 2143.03. In view of the fact that Shiozaki et al. fail to teach or fairly suggest the use of a complex oxide B having a different composition than complex oxide A, wherein lithium-containing complex oxide B is contained together with the lithium-containing complex oxide A in the active material, all the claim limitations are not taught or suggested by the prior art. As such, a *prima facie* case of anticipation or obviousness cannot be said to exist and withdrawal of Rejection (1) is respectfully requested.

*ii) As to claims 43 to 45*

The Examiner has pointed out that Shiozaki et al. discloses the positive electrode mixture having a density of at least  $2.25 \text{ g/cm}^3$  in paragraph [0171]. However, the Examiner will note the following description:

"Preferred of these for use as a negative-electrode material are graphites because graphites have an operating potential very close to that of metallic lithium and ... Results of analysis of preferred graphites by X-ray diffractometry and another technique are shown below..." (Emphasis added, see paragraphs [0170] to [0171]).

What is described in the above-noted paragraph is the density of a negative active material itself not including a binder. Moreover, the above-mentioned value ( $2.25 \text{ g/cm}^3$ ) is merely a value that is 20% or more smaller than that of the density of the positive

electrode mixture of claims 43 to 45 (i.e., 2.9 g/cm<sup>3</sup>). Consequently, claims 43 to 45 are not rendered obvious over Shiozaki et al.

During the June 7, 2007 telephone Interview, Examiner Rhee agreed that Shiozaki et al. do not teach or fairly suggest this feature.

Based on the foregoing, Applicants' claims describe patentable subject matter over the prior art, and as such, withdrawal of Rejection (1) and Rejection (2) is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance. In view of the above remarks, it is believed that claims are allowable.

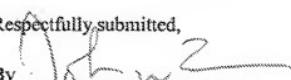
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq., Reg. No. 43,575 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: June 11, 2007

Respectfully submitted,

By

  
John W. Bailey

Registration No.: 32,881

BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatchouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant

Enclosed:

- 1) Terminal Disclaimer over Application No. 10/181,163
- 2) Terminal Disclaimer over Application No. 11/191,742